



RI-9900 Control of Hazardous Energy LOTO for Routine Maintenance

March 2011

Safety Topic of The Month

Complete Isolation/Blind list for Routine Maintenance



Operators must now use the new Refinery wide standard Isolation/Blind List for Routine Maintenance that is found as Appendix A of RI-9900

Head Operator/Head Operator qualified personnel releasing equipment must field verify and sign the Isolation/Blind List for Routine Maintenance. This verification will ensure the Isolation/Blind list is complete and accurate, prior to Maintenance arriving at job site.

The new Isolation/Blind List for Routine Maintenance has a section for tracking Blind Tags. Blind Tag sections E – A will be tracked in the shaded area of the Isolation/Blind list. All other isolation and verification points must be entered on the same Isolation/Blind list.

The Operator will put and keep a the original Isolation/Blind list in the lock box tube at the job site, and make and keep a copy of it in a designated area of the Control Room.

Shut Down Equipment



When shutting down a steam turbine is required, Operator will disengage the overspeed trip and tag it in the disengaged position with a "Yellow Operator Danger" Tag prior to isolating the supply and exhaust valves of the turbine

Yellow Operator Danger tag is the only tag to be hung on Start/Stop station.

The operator is responsible for demonstrating equipment does not start during the Joint Job Site Visit and anytime upon throughout the job Maintenance's request.

Clean up equipment



Operators are responsible for following all plant equipment clean up procedures prior to releasing equipment to Maintenance. The plant process engineer can provide specifics about cleaning methods.

Equipment Lock and Tag



Electrical Isolation methods for 480 volts and below are now conditional:

When the work being performed **involves physical contact with the rotating or reciprocating part of the equipment**, the Operator must contact Electrician and have them electrically disconnect the equipment at the motor starter.

When the work being performed does not involved **physical contact** with the rotating or reciprocating part of the equipment, the Operator can switch the breaker to the off/open position then lock and tag

Operator's Yellow Danger tag is the only tag to be hung on the start/stop station.

Since the Operator tag is the only tag at the start/stop station, Operators are responsible for demonstrating equipment does not start during anytime throughout the LOTO job.

If isolation points are shared by more than one job, all tags and blinds for each job must remain in place until all jobs are complete.

Release equipment to Maintenance



Prior to Maintenance starting work a Joint Job Site Visit must be conducted. **Operations and Maintenance are expected to conduct the JJSV together, at the job site (not in the control room).**

The JJSV process requires dialogue between Operators and Maintenance at the job site, and discussion about all isolation and depressurization points on the Isolation/Blind List for Routine Maintenance. Any hazards or other jobs in the area that may pose a hazard must also be discussed. **MSDS number will be entered on JJSV/JHA form and a hard copy available upon Maintenance request.**

A Joint Job Site Visit and a Job Hazard Analysis are now **required** before the beginning of every Maintenance shift for the length of the LOTO job.

The first craft reporting to the job site is responsible for bringing a blank copy of the JHA/JJSV form with them to the job site.

This form can be found in Appendix B of RI-9900.

Release equipment to Maintenance



Operator and Maintenance perform the JJSV, with **each craft**. Maintenance crew will complete a JHA.

The completed JJSV form will be placed in the job site lock box tube for the duration of that job.

If the work order data base is down, a completed JJSV FORM can be used as a work order. This only applies to one specific job.

The Operator is then responsible for signing job specific work order or job specific JJSV, for work that is to be performed on a specific piece of equipment, in the plant

By signing the job specific work order or job specific JJSV releases the equipment to Maintenance, insuring that the isolation/blind list is complete and a JJSV has been performed

Observe Work in Progress



The Operator must remain in the direct work area until it is verified that work is progressing safely. For example- a flange is opened up with no process leakage.

Throughout the entire LOTO job the on shift the Operator is to observe the work in progress to ensure job site safety is maintained.

All personnel are responsible for using **STOP WORK AUTHORITY** any time conditions of the job change and it is unsafe to proceed.

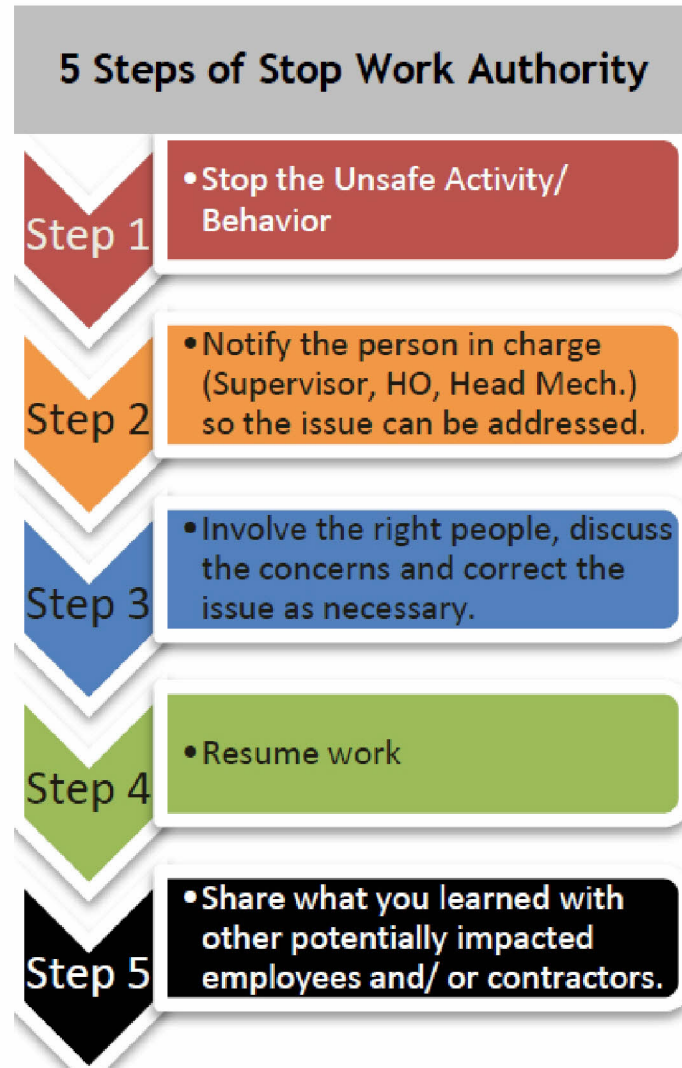
Observe Work in Progress



Remember:

- All issues will be addressed promptly
- All levels of refinery management SUPPORT you

Anytime **STOP WORK AUTHORITY** is used, Operations and Maintenance must re-evaluate the current LOTO. They must verify together that the issue has been addressed and the LOTO job is safe for work to continue.



Return Equipment to Service



If LOTO job was part of MOC work a Pre Start-up Safety Review is required. The PSSR must be completed as outlined in Refinery Instruction 367.

Maintenance:

- must verify work is complete AND area is cleaned up
- must then sign job specific work order
- Maintenance signature releases equipment back to operations

Operations:

- must verify work is complete AND area is cleaned up
- must then sign job specific work order
- Operations signature makes equipment available to be put back in service



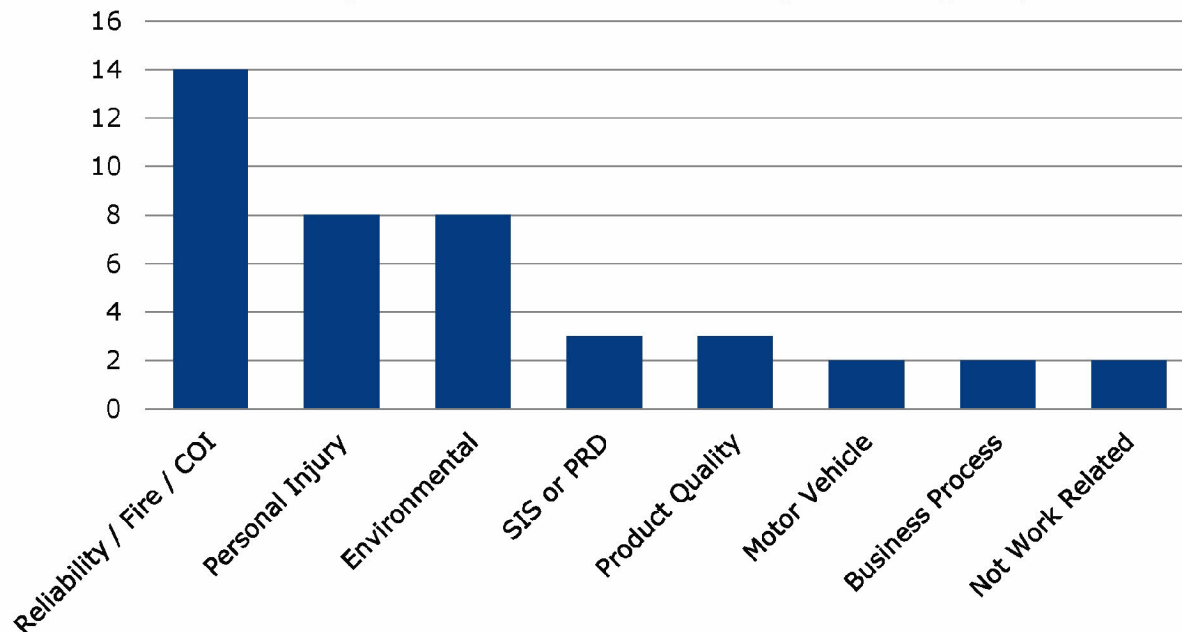
RI-376 Opening Process Lines

- RI-376 Opening Process Lines is now Appendix "K" of RI-9900
- Cathodic protection systems are covered in Appendix K
- Bonding is covered in Appendix K
- Use EI-671 for Hot Tapping

Near Loss Update



January Near Losses - By Category



Quick Win

After a report that people were driving the wrong way on Toluene Street:

- 2 problems were found with signs
- PPS will be monitoring driving